

Communication Complexity and Parallel Computing. By Juraj Hromkovič. Springer-Verlag, Berlin. (1997). 336 pages. DM 58.00, öS 423.40, sFr 51.50.

Contents:

1. Introduction. 2. Communication protocol models. 3. Boolean circuits. 4. VLSI circuits and interconnection networks. 5. Sequential computations. References. Index.

An Introduction to Kolmogorov Complexity and Its Applications (Second edition). By Ming Li and Paul Vitányi. Springer-Verlag, New York. (1997). 637 pages. DM 88.00, öS 642.40, sFr 77.50.

Contents:

Preface to the first edition. Preface to the second edition. Outlines of one-semester courses. List of figures. 1. Preliminaries. 2. Algorithmic complexity. 3. Algorithmic prefix complexity. 4. Algorithmic probability. 5. Inductive reasoning. 6. The incompressibility method. 7. Resource-bounded complexity. 8. Physics, information, and computation. References. Index.

Simulation with Visual SLAM and AweSim. By A. Alan B. Pritsker, Jean J. O'Reilly and David K. LaVal. John Wiley & Sons/Systems Publishing Corporation, New York/West Lafayette, IN. (1997). 811 pages. \$89.95.

Contents:

1. Introduction to modeling and simulation. 2. Simulation modeling perspectives. 3. Modeling and simulation process. 4. Basic network modeling. 5. Resources and gates. 6. Logic and decision nodes. 7. Interface, find and subnetwork nodes. 8. Visual SLAM processor—Inputs and outputs. 9VB. Network modeling with Visual Basic inserts. 9C. Network modeling with C inserts. 10. Network modeling with continuous variables. 11VB. Discrete event simulation using Visual Basic. 11C. Discrete event simulation using C functions. 12. Continuous modeling. 13. Combined modeling. 14. AweSim simulation support system. 15. Application of simulation. 16. Random sampling from distribution. 17. Statistical aspects of simulation. Indexes.

Geometry of Lie Groups. By Boris Rosenfeld. Kluwer Academic Publishers, Dordrecht. (1997). 393 pages. \$195.00, Dfl. 295.00, £120.00.

Contents:

Preface. 0. Structures of Geometry. 1. Algebra and Lie groups. 2. Affine and projective geometries. 3. Euclidean, pseudo-Euclidean, conformal and pseudoconformal geometries. 4. Elliptic, hyperbolic, pseudoelliptic, and pseudohyperbolic geometries. 5. Quasielliptic, quasihyperbolic, and quasi-Euclidean geometries. 6. Symplectic and quasisymplectic geometries. 7. Geometries of exceptional Lie groups. Metasymplectic geometries. References. Index of persons. Index of subjects.

Internet Economics. Edited by Lee W. McKnight and Joseph P. Bailey. MIT Press, Cambridge, MA. (1997). 525 pages. \$35.00.

Contents:

Preface. Acknowledgments. Introduction to Internet economics. An introduction to Internet economics (Lee W. McKnight and Joseph P. Bailey). The economics of the Internet. Economic FAQs about the Internet (Jeffrey K. MacKie-Mason and Hal R. Varian). The economics of layered networks (Jiong Gong and Padmanabhan Srinagesh). Internet pricing in practice (Nevil Brownlee). Flat—The minimalist price (Loretta Anania and Richard Jay Solomon). Interconnection and multicast economics. Internet cost structures and interconnection agreements (Padmanabhan Srinagesh). The economics of Internet interconnection agreements (Joseph P. Bailey). Sharing multicast costs (Shai Herzog, Scott Shenker and Deborah Estrin). Usage sensitive pricing. Internet cost allocation and pricing (David Clark). Charging and accounting for Bursty connections (Frank P. Kelly). Responsive pricing in the Internet (Jeffrey K. MacKie-Mason, Liam Murphy and John Murphy). User control and IP allocation (Ketil Danielsen and Martin Weiss). Priority pricing of integrated services networks (Alok Gupta, Dale O. Stahl and Andrew B. Whinston). Optimal pricing for integrated services networks (Qiong Wang, Jon M. Peha and Marvin A. Sirbu). Internet commerce. Internet services: A market for bandwidth or communication? (David W. Crawford). Internet payment services (B. Clifford Neuman and Gennady Medvinsky). Endorsements, licensing, and insurance for distributed services (Charlie Lai, Gennady Medvinsky and B. Clifford Neuman). Information security for Internet commerce (Lee McKnight with Richard Solomon, Joseph Reagle, David Carver, Clark Johnson, Branko Gerovac and David Gingold). Internet economics and policy. The economic efficiency of Internet public goods (Martyne M. Hallgren and Alan K. McAdams). Internet pricing: A regulatory imperative (Mitrabaran Sarkar). Acronyms. Contributors. Index.

Design and Engineering of Intelligent Communication Systems. By Syed V. Ahamed and Victor B. Lawrence. Kluwer Academic Publishers, Boston. (1997). 675 pages. \$135.00, Dfl. 250.00, £95.85.

Contents:

Table of figures. Preface. Part I. Overview of the communication facilities. 1. Basic communication networks. 2. FM techniques in existing networks. 3. Video and TV environment. 4. Current digital networks. Part II. The metallic media: The physical environment. 5. Subscriber loops. 6. Operational environment for the HDSL. Part III. The metallic media: The computational environment. 7. Simulation and CAD aspects. 8. Data bases